

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-18. (Canceled)

19. (Currently amended) ~~The switching regulator of claim 23,~~ A switching regulator comprising:

a DC-DC converter that includes a switching device and that is arranged to provide an output voltage;

a control signal generating circuit arranged to generate a pulse signal as a control signal corresponding to the output voltage of the DC-DC converter and arranged to generate a reference voltage that varies with the pulse signal of the control signal generating circuit and is in substantially opposite phase to the output voltage of the DC-DC converter, wherein the control signal generating circuit comprises:

a comparator to compare a voltage based on the output voltage of the DC-DC converter with the reference voltage;

a flip-flop set arranged to be set by an output of the comparator; and

a pulse control circuit arranged to reset the flip-flop when a predetermined on-period elapses after a rise of an output pulse of the flip-flop;

wherein the control signal generating circuit is arranged to provide the output pulse of the flip-flop as a control signal for the switching device;

wherein the switching regulator further comprises a driver circuit arranged to drive the switching device based on the control signal; and

wherein the driver circuit comprises an output terminal via which a signal based on an inverted signal of the control signal is outputted, the switching regulator further comprises a constant voltage source and a resistor that has one end thereof connected to the output terminal

of the driver circuit via which the signal based on the inverted signal of the control signal is outputted and that has another end thereof connected to an output terminal of the constant voltage source, and a voltage at a node between the constant voltage source and the resistor is the reference voltage.

20. (Currently amended) ~~The switching regulator of claim 23, further comprising~~

A switching regulator comprising:

a DC-DC converter that includes a switching device and that is arranged to provide an output voltage;

a control signal generating circuit arranged to generate a pulse signal as a control signal corresponding to the output voltage of the DC-DC converter and arranged to generate a reference voltage that varies with the pulse signal of the control signal generating circuit and is in substantially opposite phase to the output voltage of the DC-DC converter, wherein the control signal generating circuit comprises:

a comparator to compare a voltage based on the output voltage of the DC-DC converter with the reference voltage;

a flip-flop set arranged to be set by an output of the comparator; and

a pulse control circuit arranged to reset the flip-flop when a predetermined on-period elapses after a rise of an output pulse of the flip-flop;

wherein the control signal generating circuit is arranged to provide the output pulse of the flip-flop as a control signal for the switching device;

wherein the switching regulator further comprises:

a driver circuit arranged to drive the switching device based on the control signal;

and

a constant voltage source and a resistor that has one end thereof connected to an inverting output terminal of the flipflop and that has another end thereof connected to an output terminal of the constant voltage source, wherein a voltage at a node between the constant voltage source and the resistor is the reference voltage.

21. (Currently amended) ~~The switching regulator of claim 23, further comprising~~
A switching regulator comprising:
a DC-DC converter that includes a switching device and that is arranged to provide an
output voltage;
a control signal generating circuit arranged to generate a pulse signal as a control signal
corresponding to the output voltage of the DC-DC converter and arranged to generate a reference
voltage that varies with the pulse signal of the control signal generating circuit and is in
substantially opposite phase to the output voltage of the DC-DC converter, wherein the control
signal generating circuit comprises:
a comparator to compare a voltage based on the output voltage of the DC-DC
converter with the reference voltage;
a flip-flop set arranged to be set by an output of the comparator; and
a pulse control circuit arranged to reset the flip-flop when a predetermined on-
period elapses after a rise of an output pulse of the flip-flop;
wherein the control signal generating circuit is arranged to provide the output pulse of the
flip-flop as a control signal for the switching device;
wherein the switching regulator further comprises:
a driver circuit arranged to drive the switching device based on the control signal;
and
a constant voltage source, a variable current source that varies a current according to a
signal based on the control signal, and a resistor that has one end thereof connected to the
constant voltage source and that has another end thereof connected to the variable current source,
wherein a voltage at node between the resistor and the variable current source is the reference
voltage.

22-23. (Canceled)